

REMARKS

The present application was filed on September 26, 2003 with claims 1 through 23. Claims 11-17 were cancelled in the Amendment and Response to Office Action dated March 7, 2008. Claims 1-10 and 18-23 are presently pending in the above-identified patent application. Claims 1-4 and 18-22 are proposed to be amended herein.

In the Office Action, the Examiner rejected claims 1, 2, 5-10, 18, and 20-23 under 35 U.S.C. §103(a) as being unpatentable over Wang (United States Patent No. 5,721,733) in view of Currivan et al. (United States Patent Application Publication Number 2003/0026283), and rejected claims 3, 4, 13, 14, and 19 under 35 U.S.C. §103(a) as being unpatentable over Wang in view of Currivan et al. as applied to claims 1, 2, and 18 above, and further in view of Fukuhara (United States Patent Number 6,643,296).

Independent Claims 1 and 18

Independent claim 1 and 18 were rejected under 35 U.S.C. §102(b) as being anticipated by Wang et al. In particular, the Examiner asserts that Wang discloses a collision detector that monitors a wireless medium for collisions of the acknowledgement message (col. 5, line 66, to col. 6, line 8). Applicants also note that the Examiner acknowledges that Wang does not disclose that the collision detector evaluates an energy level and detects a collision based on the energy level. The Examiner asserts, however, that Currivan et al. discloses a collision detection module that evaluates a power indication signal (citing par. 0072), and detects a collision *based on the evaluated power indication signal* (citing par. 75 and Table 1). In the Advisory Action, the Examiner asserts that Currivan discloses that a comparator receives a SNR indication signal and a threshold signal having a threshold value T2, then the comparator compares these inputs and generates an output signal 459 that indicates the result of this comparison (paragraph 74) and that a collision is detected when the output signal 459, which indicates the average SNR of a burst transmission, is low.

Applicants note that independent claims 1 and 18 have been amended to require a controller *configured to monitor for an acknowledgement (ACK) message* transmitted by a second wireless communication device in response to a message transmitted by said first wireless communication device, and a collision detector that monitors a wireless medium for collisions of said acknowledgement message *based on an energy level, preamble detection, and*

payload detection.

First, to be precise, claim 1, as amended, does not merely require detect(ing) a collision of an acknowledgement message, as suggested by the Examiner. Rather, claim 1 requires detect(ing) a collision of said acknowledgement message based on an energy level, preamble detection, and payload detection. Applicants find *no* disclosure or suggestion in Wang of a collision detector that monitors a wireless medium for collisions of an acknowledgement message based on an energy level, preamble detection, and payload detection, and.

Applicants also note that, in par. 0076 of Currivan et al., it is clear that output signal 457 indicates the power of the data portion of a burst transmission. In Table 1, it is clear that output signal 457 does *not* correlate with whether a collision is detected. In fact, a collision can be detected if the output signal 457 is high (second row), medium (fourth row), low (sixth row) or high (seventh row). Thus, a collision is *not* detected in Currivan et al. based on an energy level, preamble detection, and payload detection, as required by independent claims 1 and 18, as amended.

Regarding the Examiner's assertion that Currivan discloses that a collision is detected when the output signal 459 indicates the average SNR of a burst transmission is low, Applicants note that a SNR is a *signal-to-noise ratio* and is *not* a measured energy level (i.e., not a measured level of energy), as would be apparent to a person of ordinary skill in the art. Currivan does *not* disclose or suggest determining an energy level or monitoring said wireless communication network to detect a collision of said acknowledgement message based on an energy level, preamble detection, and payload detection.

Thus, even as combined in the manner suggested by the Examiner, Wang and Currivan *do not teach every element of the independent claims.* Furthermore, based on the KSR considerations discussed hereinafter, the combination/modification suggested by the Examiner is not appropriate.

KSR Considerations

An Examiner must establish "an apparent reason to combine ... known elements." *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007). Here, the Examiner merely states that it would have been obvious to implement a collision detection module as taught by Currivan into the collision detecting apparatus of Wang since it provides a

more efficient transmission method.

Applicants are claiming a new technique for collision detection in a communication network. There is *no* suggestion in Wang or in Currivan, alone or in combination, for a collision detector that monitors a wireless medium for collisions of said
5 acknowledgement message based on an energy level, preamble detection, and payload detection.

Currivan's teaching to utilize a SNR ratio *teaches away* from the present invention. The KSR Court discussed in some detail United States v. Adams, 383 U.S. 39 (1966), stating in part that in that case, "[t]he Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means
10 of combining them is more likely to be nonobvious." (KSR Opinion at p. 12). Thus, there is no reason to make the asserted combination/modification.

Thus, Wang, Wales, Currivan, and Fukuhara, alone or in combination, do not disclose or suggest a controller configured to monitor for an acknowledgement (ACK) message transmitted by a second wireless communication device in response to a message transmitted by
15 said first wireless communication device, and a collision detector that monitors a wireless medium for collisions of said acknowledgement message based on an energy level, preamble detection, and payload detection, as required by independent claim 1, as amended, and do not disclose or suggest monitoring said wireless communication network for an acknowledgement message received in response to transmitted data; and monitoring said wireless communication
20 network to detect a collision of said acknowledgement message based on an energy level, preamble detection, and payload detection, as required by independent claim 18, as amended.

Dependent Claims

Claims 2-10 and 19-23 are dependent on claims 1 and 18, respectively, and are therefore patentably distinguished over Wang, Wales, Currivan, and Fukuhara, alone or in
25 combination, because of their dependency from amended independent claims 1 and 18 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims following entry of the amendments, i.e., claims 1-10 and 18-23, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

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Respectfully submitted,

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